

IN THE CLAIMS:

Please amend the Claims as follows:

1. (Currently amended): A light stable hydrophobic polyurethane elastomer comprising the reaction product of:

- C1
- A) an isocyanate terminated prepolymer having an isocyanate content ranging from 4 to 12 wt.% NCO comprising the reaction product of:
 - i) an OH terminated homopolymer of butadiene having a molecular weight ranging from 1000 to 4000 and an OH functionality of from 1.9 to 2.1, prepared in the presence of bis(tricyclohexylphosphine) benzylidene-ruthenium dichloride catalyst; and
 - ii) at least one non-crystalline aliphatic or cycloaliphatic diisocyanate; and
 - B) at least one symmetric diol or diamine chain extender having a molecular weight ranging from 62 to 400.

2. (Original): The elastomer according to Claim 1 wherein said homopolymer of butadiene is dihydroxyl terminated polybutadiene.

C2

3. (Previously amended): The elastomer according to Claim 1, wherein the OH terminated homopolymer of butadiene is represented by the formula:



wherein n is a number average value from about 8 to 36.

C2

C3

4. (Currently amended): The elastomer according to Claim 1, wherein said at least one aliphatic or cycloaliphatic diisocyanate is selected from the group consisting of 1,4-tetramethylene diisocyanate, 1,6-hexamethylene diisocyanate, 2,2,4-trimethyl-1,6-hexamethylene diisocyanate, 1,12-dodecamethylene diisocyanate, cyclohexane-1,3- and -1,4-diisocyanate, 1-isocyanato-2-isocyanatomethyl cyclopentane, 1-isocyanato-3-isocyanatomethyl-3,5,5-trimethyl-cyclohexane (isophorone diisocyanate or IPDI), bis-(4-isocyanatocyclohexyl)-methane, 2,4'-dicyclohexylmethane diisocyanate, 1,3- and 1,4-bis-(isocyanatomethyl)-cyclohexane, bis-(4-isocyanato-3-methyl-

Mo5457

cyclohexyl)-methane, $\alpha,\alpha,\alpha',\alpha'$ -tetramethyl-1,3- and/or -1,4-xylylene diisocyanate, 1-isocyanato-1-methyl-4(3)-isocyanatomethyl cyclohexane, 2,4- and/or 2,6-hexahydrotolylene diisocyanate and 4,4'-dicyclohexyl-methanediisocyanate (rMDI).

C3 5. (Currently amended): The elastomer according to Claim 4, wherein said at least one aliphatic or cycloaliphatic diisocyanate is 1-isocyanato-3-isocyanatomethyl-3,5,5-trimethyl-cyclohexane.

6. (Currently amended): The elastomer according to Claim 4, wherein said at least one aliphatic or cycloaliphatic diisocyanate is 4,4'-dicyclohexylmethane-diisocyanate.

7. (Original): The elastomer according to Claim 6, wherein said 4,4' - dicyclohexyl-methanediisocyanate contains about 23% by weight *trans,trans*, 49% by weight *cis,trans*, and 28% by weight *cis,cis* isomer.

C4 8. (Currently amended): The elastomer according to Claim 1, wherein said at least one symmetric diol or diamine chain extender is selected from the group consisting of 1,6-hexane-diol, 1,8-octanediol, ~~2,2,4-trimethylpentane 1,3-diol~~, 2-methyl-1,3-propanediol, ethylene glycol, diethylene glycol, dipropylene glycol, 1,4-butanediol, terephthalic acid bis(ethylene glycol), terephthalic acid bis(1,4-butanediol), 1,4-di(hydroxyethyl) hydroquinone, symmetric ethoxylated bisphenols, isophorone-diamine, ethylenediamine, ~~1,2-propylenediamine~~, 1,3-propylenediamine, N-methylpropylene-1,3-diamine, N,N'-dimethyl ethylenediamine, ~~2,4-tolylenediamine~~, 2,6-tolylenediamine, ~~3,5-diethyl-2,4-tolylenediamine~~, 3,5-diethyl-2,6-tolylenediamine and primary symmetric mono-, di-, tri- or tetraalkyl-substituted 4,4'-diaminodiphenylmethanes.

9. (Currently amended): The elastomer according to Claim 8, wherein said at least one symmetric diol or diamine chain extender ~~is comprises~~ 1,4-butanediol.

C5 10. (Previously amended): The elastomer according to Claim 1, wherein the OH terminated homopolymer of butadiene has an OH functionality ranging from 1.95 to 2.0.

Mo5457

C6 11. (Currently amended): The elastomer according to Claim 1, wherein said isocyanate terminated prepolymer and said at least one symmetric diol or diamine chain extender are combined at an NCO/OH index of between 50 and 150.

12. (Currently amended): A light stable hydrophobic polyurethane elastomer comprising the reaction product of:

A) an isocyanate terminated prepolymer having an isocyanate content ranging from 4 to 12 wt.% NCO comprising the reaction product of:

- i) an OH terminated homopolymer of butadiene having a molecular weight ranging from 1000 to 4000 and an OH functionality of from 1.9 to 2.1, prepared in the presence of bis(tricyclohexylphosphine) benzyldiene-ruthenium dichloride catalyst; and
- ii) at least one non-crystalline aliphatic or cycloaliphatic diisocyanate; and

C7 B) 1,4-butanediol.

13. (Currently amended): A process for preparing a light stable hydrophobic polyurethane elastomer comprising:

A) forming a polyurethane reactive mixture by reacting:

- i) an isocyanate terminated prepolymer having an isocyanate content ranging from 4 to 12 wt.% NCO comprising the reaction product of:

- a) an OH terminated homopolymer of butadiene having a molecular weight ranging from 1000 to 4000 and an OH functionality of from 1.9 to 2.1, prepared in the presence of bis(tricyclohexylphosphine) benzyldiene-ruthenium dichloride catalyst; and
- b) at least one non-crystalline aliphatic or cycloaliphatic diisocyanate;

with

- ii) at least one symmetric diol or diamine chain extender having a molecular weight ranging from 62 to 400;

and

B) ~~allowing curing~~ the reactive mixture to cure in a mold.

14. (Currently amended): A process for preparing a light stable hydrophobic polyurethane elastomer comprising:

A) forming a polyurethane reactive mixture by reacting:

i) an isocyanate terminated prepolymer having an isocyanate content ranging from 4 to 12 wt.% NCO comprising the reaction product of:

- a) an OH terminated homopolymer of butadiene having a molecular weight ranging from 1000 to 4000 and an OH functionality of from 1.9 to 2.1, prepared in the presence of bis(tricyclohexylphosphine) benzylidene-ruthenium dichloride catalyst; and
- b) at least one ~~non-crystalline~~ aliphatic or cycloaliphatic diisocyanate;

with

ii) 1,4-butanediol;

and

B) ~~allowing curing~~ the reactive mixture to cure in a mold.

C7